DOCUMENT RESUME

ED 148 206 HE 009 466

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TITLE	College Student Withdrawal: A Motivational Problem.
INSTITUTION	Research Triangle Inst., Durham, N.C.
PUB DATE	Apr 77
NOTE	28p.; Paper presented at the Annual Meeting of the American Educational Research Association (New York, April 1977)
AVAILABLE FROM	Research Triangle Institute, Research Triangle Park, North Carolina 27709
EDRS PRICE	MF-$0.83 HC-$2.06 Plus Postage.
DESCRIPTORS	Black Students; Caucasian Students; *College Students; Community Colleges; *Dropout Research; Dropouts; Females; Financial Problems; Grades (Scholastic); Higher Education; Longitudinal Studies; Males; *National Surveys; *Persistence; Predictor Variables; *School Holding Power; Statistical Data; Student Financial Aid; *Student Motivation

ABSTRACT

The process of withdrawal from two- and four-year institutions of higher education was studied. Data were drawn from the base year and the first and second follow-ups of the National Longitudinal Study of the High School Class of 1972. Results indicated that: (1) women students were more likely to withdraw only in two-year colleges; (2) white students were more likely than black students to withdraw when other variables were controlled; (3) high school program, college grades, and educational aspiration account for most variance of withdrawal behavior; and (4) financial aid did not have a significant effect on college persistence. The data showed that withdrawal was more a motivational than a socioeconomic problem. (Author/LBH)

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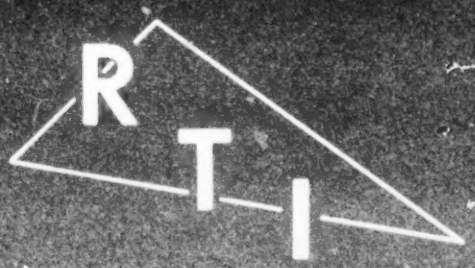

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ED148206

College Student Withdrawal: A Motivational Problem

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Paper Presented at the Annual Meetings of the
American Educational Research Association
in New York, April 1977

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Abstract

This study investigated the process of withdrawal from four-year and two-year institutions of higher education. Data were drawn from the base year and the first and second followups of the National Longitudinal Study of the High School Class of 1972. Results indicated that (1) women students were more likely to withdraw only in two-year colleges; (2) white students were more likely than black students to withdraw when other variables were controlled; (3) high school program, college grades, and educational aspiration account for most variance of withdrawal behavior; and (4) financial aid did not have significant effect on college persistence. The data showed that withdrawal was more a motivational than a socioeconomic problem.

College Student Withdrawal: A Motivational Problem

Withdrawal from college is an important issue in higher education for varying reasons: For one thing, withdrawal is generally considered a painful process for many students because of possible vocational and/or personal setbacks that may result from impeded career development and the futile expenditure of time and effort, even though withdrawal can be a positive step for some students and their parents (see Sanford, 1956; Summerskill, 1962). For another thing, withdrawal presents problems to school administrators because of misallocation of limited educational resources. Consequently, students, parents, counselors, and educational decisionmakers want to know who drops out of college and why. The resultant information may lead to more effective counseling in assisting students to select a college and field of study in which they are likely to complete their education. The information may also assist administrators in formulating recruitment and admission policies in allocating financial aid to enhance the probability that students will complete their studies. This is particularly important given the decline in birth rates in the last 15 years (U.S. Bureau of the Census, 1964 and 1973) because the consequent decline in the numbers of college entrants may cause the financial survival of many colleges to depend in part on reducing the number of withdrawals.

The issue has certainly not been neglected in the past. Numerous studies have been conducted; however, most of the studies are restricted from broad generalizations because of the ambiguous definition of dropouts and the lack of a representative sample of institutions for making national estimates (see Spady, 1970; Tinto, 1975). Many studies fail to distinguish academic suspension (i.e., dropout resulting from academic failure) from nonacademic withdrawal, or permanent dropouts from persons whose leaving may be temporary (i.e., stopouts) or may lead to a transfer to other institutions of higher education (Tinto, 1975). The failure to make such distinctions in past research has resulted in contradictory findings and misleading implications. Failure to separate permanent dropouts from stopouts or transfers has resulted in substantial overestimation of the extent of

withdrawals in higher education, as well as in an inability to identify populations requiring specific forms of assistance (Spady, 1970).

The lack of a representative sample is another problem frequently found in the previous studies. Many studies are limited to a single institution or institutions within a localized region, and thus no nationwide implications can be drawn. There are a few published national studies (e.g., Iffert, 1958; Trent & Medsker, 1968; Astin, 1972); however, they also suffer from such defects as nonrepresentative sampling of institutions.

All these limitations of previous research imply that well-defined withdrawals and data involving representative institutions are needed to provide a deeper understanding of the withdrawal phenomenon. In addition, recent socioeconomic developments such as the women's movement and a tight labor market for college graduates may have changed the value of college education (Freeman & Holloman, 1975), and this may have had an impact on college entrance and consequently persistence. It is, therefore, the primary purpose of this study to more fully examine the phenomenon of college withdrawal with a set of recent and comprehensive longitudinal data involving a representative sample of college students in the United States. While many questions relating to college withdrawal can be asked, this study focuses on the following: What variables are associated with college withdrawal and how do these variables operate in the withdrawal process?

Method

A. The Data Base

The data used in this study were drawn from the base-year and the first and second follow-up data of the National Longitudinal Study of the High School Class of 1972 (NLS). Educational and work experiences as well as plans, aspirations, attitudes, and personal background characteristics were measured over three points in time on a sample of over 22,000 high school seniors in the class of 1972. The base-year data were collected in the spring of 1972, the first follow-up data were collected in the fall and winter of 1973-74, and the second follow-up data were collected in the fall

and winter of 1974-75. A detailed description of the sample, instruments, and data collection procedures can be found in the Base Year, First and Second Follow-Up Data File Users Manual (Levinsohn, Lewis, Riccobono, & Moore, 1976).

During the first follow-up survey, sample members were asked to indicate whether or not they enrolled in a college by October 1972, and if so, in what type of program. Those members who reported attendance in any academic program (generally leading to a Bachelor's degree) in a two-year or four-year institution by October 1972 were the primary focus of the analyses. Students enrolled in vocational or technical programs were not included in this study because those vocational-technical students had different educational goal orientations and academic preparation, and thus their inclusion in the study would yield misleading results. In addition, since most previous studies of college attrition were generally concerned with academic students, the inclusion of vocational-technical students would complicate meaningful comparisons between present and previous findings.

College-going status of those students who enrolled in an academic program by October 1972 were re-examined in October 1973 and 1974. Students who continued an academic program over the two years in either the same or different institutions were classified as persisters. Students who withdrew from an academic program, either leaving the school or changing to a vocational/technical program by October 1973 or by October 1974 were classified as withdrawals. In the case of two-year colleges, withdrawals included those students who left school by October 1973 or 1974 without completion, those students who transferred from an academic to a vocational-technical program by October 1973 or 1974, and those students who completed a two-year college program but did not continue in a four-year college for a college degree. Transfers from one academic to another academic program, either in two-year or four-year colleges were not classified as withdrawals because this study was concerned with withdrawal process from college as a whole and not from any particular institution.

Some 4,538 students from four-year institutions and 1,378 students from two-year colleges were identified for this study. Those students were enrolled in over 1,800 institutions by October 1972. It should be noted

that these students included only blacks and whites; members of other minority members were not retained in the study because the sample sizes of those minority groups were too small for reliable estimates, and their inclusion may complicate interpretations of the data.

B. Conceptualization and Variable Specifications

College withdrawal, like many other educational problems, can be best understood within the framework of a model in which varying background characteristics, personal attributes, and environmental influences interact to affect withdrawal behavior. A critical element in this modeling, however, is the selection of variables. Decisions were generally guided by findings of previous studies, theoretical reasoning, and the availability of data. The basic model to be employed in this study was that withdrawal behavior is a function of additive main effects of student bio-social background, high school experience or preparation, educational aspiration, financial support and college performance. These variables were typically considered important in college withdrawal (see Astin, 1975; Eckland, 1964; Tinto, 1975).

The model is presented schematically in Figure 1. The ordering of the variables was dictated by some implied theory of the causal structure that linked one variable with another, or by the time frame in which these variables were measured or, if retrospective, to which they referred. The longitudinal nature of the data base was a unique feature of study because the temporal sequence of variables allowed a more defensible explanation of process variables that affect withdrawal than any ex post facto approach.

Insert Figure 1 About Here

The measurement of the selected variables is described as follows:

1. Socioeconomic Status (SES): SES was based upon a composite of father's education, mother's education, parental income, father's occupation, and a household items index. Factor analysis revealed a common factor with approximately equal loadings for each of the five components. Missing components were imputed as the mean of

the subpopulation of which the respondent was a member, defined according to cross-classifications of race, high school program, and aptitude. The available standardized components, both imputed and nonimputed were averaged to form an SES when at least two nonimputed components were available. A high score indicates high SES.

2. Sex: female = 1; male = 0.
3. Race: white = 1; black = 0.
4. High School Curriculum: Based upon students' school record information, students in college preparatory (academic) programs were assigned a value of 1, and those students in general, vocational, or technical programs were assigned a value of 0.
5. High School Achievement: This was measured by students' percentile rank as obtained from the school record information.
6. Academic Ability: The ability measure was a composite score of four tests: Vocabulary, Reading, Letter Groups, and Mathematics. A factor analysis revealed a general academic ability factor that was represented by an equally weighted linear composite of these four standardized tests.
7. Educational Aspiration: This variable measured the educational level one planned to have during his senior year in high school. It was scored as follows: high school or less = 1; some vocational studies beyond high school = 2; two-year college = 3; four-year college or graduate school = 4.
8. Work in October 1972: Full-time work = 3, part-time work = 2, and not working = 1.
9. Scholarship Recipient: Students receiving any of the following scholarship programs or benefits were assigned a value of 1; otherwise, a value of 0:
   a. Basic Educational Opportunity Grant Program.
   b. Supplementary Educational Opportunity Grant Program.
   c. College scholarship or grant from college funds.

d. ROTC scholarship or stipend.

e. Nursing Scholarship Program.

f. Health Professions Scholarship Program.

g. State scholarships.

h. Other scholarships.

i. Law Enforcement Educational Program.

j. Veterans Administration War Orphans or Survivors Benefits Programs.

k. Veterans Administration direct benefits (GI Bill compensation or pension).

l. Vocational Rehabilitation Program benefits.

m. Social Security Benefits (for students aged 18-22 who are children of retired, disabled, or deceased parents).

10. Loan Recipients: Students receiving any of the following loan programs were assigned a value of 1; otherwise, a value of 0:

a. Federal Guaranteed Student Loan Programs.

b. State Loan Program.

c. Regular bank loan.

d. National Defense (Direct) Student Loan Program.

e. Health Professions Student Loan Program.

f. Nursing Student Loan Program.

11. College Achievement: This was measured by student reported college grade-point-average by October 1972. They were coded as follows: Mostly A = 8; about half A and half B = 7; mostly B = 6; about half B and half C = 5; mostly C = 5; about half C and half D = 3; mostly D = 2; mostly below D = 1.

C. Analysis Strategy

Students in four-year and two-year institutions were separately examined because previous research showed that different types of students attend these institutions. The two-year colleges tend to attract students of lower ability (American Council on Education, 1970) and lower socioeconomic status (U.S. Department of Commerce, 1972). In addition, previous studies have found that students who enter a two-year college are much more likely

to withdraw than are students who enter four-year colleges or universities (National Commission on the Financing of Postsecondary Education, 1973). The institutional withdrawal rate itself may be a factor in dropping out, since the atmosphere is different in colleges where the majority will receive a degree as contrasted to colleges in which only a small percentage will graduate (Summerskill, 1962). Consequently, student withdrawals in four-year and two-year colleges were examined separately.

The statistical technique used in this study is basically multiple regression analysis (see Tatsuoka, 1971; Finn, 1974). The major limitation of this technique is that it does not easily allow for the study of interaction effects. However, it has been found that there are not substantial interaction effects of the selected predictors on withdrawal behavior (Peng, Ashburn, & Dunteman, 1976). Curvilinear relationships between the selected predictors and withdrawal behavior also were not found. College withdrawal can thus be viewed as a simple function of the additive main effects of many individual variables.

Results

The means and standard deviations of the predictor variables for persisters and withdrawals separated by the type of college are presented in Table 1. Examination of these statistics revealed that four-year college persisters differed from withdrawals in most of the variables except for sex and loan recipient. Persisters had higher SES, aspiration, ability, and achievement than withdrawals. Also more persisters took an academic high school program and fewer worked in October 1972 than withdrawals. Similarly, persisters from two-year colleges had higher SES, ability, academic qualification or preparation than withdrawals. Examination of these statistics also revealed that four-year and two-year college students were quite different in their backgrounds. Even the persisters from two-year colleges, on the average, had lower SES, aspiration, percentile rank, and academic ability than withdrawals from the four-year college. This supported the earlier argument that two-year and four-year college students should be separated in the analyses.

Withdrawal rates for college students over two years may be obtained from Table 1. Based upon the sample sizes for persisters and withdrawals, it was estimated that about 34 percent of four-year college students withdraw within two years after matriculation. The withdrawal rate was higher for the two-year college academic students; about 60 percent withdrew in the first two years after matriculation. It should be remembered that the samples did not include other minority members such as Hispanics, American Indians, and American Orientals. The overall withdrawal rates could be higher than those estimated in this study since Hispanics and American Indians tend to have a higher withdrawal rate than whites (e.g., Astin, 1975).

Insert Table 1 About Here

Table 2 presents simple correlation coefficients among variables. The upper triangular matrix is for the four-year college students, and the lower triangular matrix is for the two-year college students. The correlations between withdrawal and predictor variables further describes the existence and magnitude of their relationships. In the four-year colleges, academic ability scores and achievement, as measured by percentile rank in high school and college grades, had greater relationships with college withdrawal than other variables. In the two-year colleges, educational aspiration had the highest relationship with college withdrawal. Scholarship recipients tended to be more persistent than nonrecipients, but loan recipients had no relationship with persistence. However, none of the correlations were greater than .25. The low correlations between predictor variables and withdrawal were consistent with previous findings.

Insert Table 2 About Here

As shown in Table 2, many predictor variables were related to each other, and this could mislead the interpretations based upon the simple correlation between a single predictor variable and withdrawal. For example, academic ability was related to high school program, percentile rank, SES, and race (white); thus, the unique relationship between academic ability

and withdrawal may be confounded by these variables; or conversely, the effects of these variables may be confounded by academic ability. The unique relationship between a predictor and withdrawal is, therefore, better represented by standardized partial regression coefficients.

The standardized partial regression coefficients for the full withdrawal model are presented in Table 3. These statistics help to reveal the direct and indirect relationships between predictor variables and withdrawal behavior. In general, the pattern of relationships between predictors and withdrawal was similar to that described by simple univariate statistics (means, and simple correlations). However, the most important predictors for four-year college students in terms of the magnitude of "effect" (i.e., direct or unique relationship) were revealed: college grades, percentile rank in class, high school program, educational aspirations and employment, race (white), and SES, in that order. For the two-year college students, a somewhat different order and set of variables were involved. In rank order of importance they were: college grades, sex, rank in class, high school program, SES, and educational aspirations.

The overall magnitude of the relationships was small. The total variance of withdrawal behavior accounted for by the 11 variables was about 10 percent for four-year college students, and 9 percent for the two-year college students (see multiple R^2 in Table 3). Several interesting findings, however, surfaced from the multiple regression analyses. First, academic ability was no longer related to withdrawal in either four-year or two-year colleges largely because the effects were indirectly mediated through aspirations, college achievement, and scholarship. Second, race (white) had a positive regression weight on withdrawal behaviors, although the weight was significant ($p<.01$) only among the four-year college students. This means that white students are more likely than blacks to withdraw from colleges when important variables such as SES, achievement, and aspiration are controlled. As shown in Table 3, whites were more likely to be in an academic high school program and to have higher class rank and test scores, but whites had lower educational aspirations than blacks. Third, in two-year but not four-year colleges, sex (female) became significantly related to withdrawal, indicating that females were more likely than male students to withdraw.

High school percentile, educational aspirations, and college grades were significantly related to withdrawal after other predictor variables were considered. These results were consistent with previous findings (Demitroff, 1974; Summerskill, 1962; Tinto, 1975).

SES was also significantly related to college withdrawal after other predictor variables were controlled. This, however, probably reflects something more about the effect of parental expectations and pressure rather than financial conditions since neither scholarships nor loans had a significant relationship to college withdrawal in either the four-year or two-year institutions. If financial stress leads to higher withdrawal rate, then recipients of scholarships or loans should show a higher persistence rate than nonrecipients. This, however, was not supported by the analyses; none of the regression weights for financial aid programs were significant at the .05 level. The NLS data did not support the claim that scholarships but not loans are related to college persistence and thus financial aid funds should be used solely for scholarship or grants (Astin, 1973; Iffert, 1958).

High school curricular program was another predictor variable associated with withdrawal at both types of colleges, while working was associated only with four-year college withdrawal after other variables were controlled. The high school program was particularly noteworthy because it seemed to indicate that a particular curriculum may have attracted certain types of students who were more likely to persist in college or prepared students differently so that they were better qualified for and had a greater commitment to college education. Working may have a depresent effect on persistence among four-year college students.

Insert Table 3 About Here

Discussion

The National Longitudinal Study of the High School Class of 1972 has provided a data base for an examination of the withdrawal process of academic

students in both four-year and two-year institutions. Results indicated that withdrawal from college was not highly predictable. The proportion of variance accountable for by 11 selected variables typically considered important was about 10 percent. This indicates that withdrawal is a complex process in which each individual functions quite differently, and there are not many common elements across individuals. Nevertheless, the analyses yielded several interesting findings, and they are discussed as follows.

The data failed to reveal any substantial differences in withdrawal rates between men and women students in four-year institutions, contrary to findings of many previous studies (e.g., Astin, 1972; Cope, 1971; Spady, 1970). However, in two-year colleges, women students were more likely than men students to withdraw after other variables such as SES, aspiration, and ability were controlled, although they obtained better grades in college than men. Reasons for this sex difference were unknown. It is possible that more women students in two-year colleges were less clear about their educational goals or their educational goals were interrupted by other obstacles such as marriage. Whatever the reason, the finding may partially explain the inconsistency among previous studies; that is, the existence of sex differences depends upon the type of institutions or programs. On the other hand, the present findings, in contrast to earlier results, may reflect a change in the historical circumstances that affect sex roles.

Without considering other variables, the results supported findings from other studies that black students are more likely to withdraw from college than white students (e.g., Flax, 1971; Astin, 1975). However, when SES or other variables were controlled, white students in four-year institutions had a higher withdrawal rate than black students. In two-year colleges, the difference was in the same direction, although not statistically significant. This pattern of race difference was also found in a study of college entry (Peng, 1977). Thus, it is concluded that race differences can largely be accounted for by variables such as rank in class, high school program (academic preparation), and SES. Race itself has little effect on college persistence as well as entry. The higher withdrawal rate of white students in the four-year college also suggested that more white students than blacks may have been misguided or "pushed" into the four-year colleges because of peer culture or parental expectations.

High school program was significantly related to college withdrawal, showing that the individuals from general or vocational programs were more likely to withdraw than students from academic programs. This finding was expected because academic or college preparatory programs are presumably designed to prepare students for college, and they may lead students to a greater commitment to or integration into the college system, which, as postulated by Spady (1970) and Tinto (1975), is a precondition to a high degree of persistence. In contrast, students from general or vocational programs who entered college and then withdrew may have been ill-advised to go to college in the first place, or were inadequately prepared. This simply points out the need for effective counseling services in high school and/or evaluation of high school curricular programs.

Consistent with findings of other studies (e.g., Sewell & Shah, 1967; Eckland, 1964), family background, as measured by socioeconomic status (SES), was an important variable associated with college withdrawal. In general, students from lower SES families had a higher withdrawal rate than students from higher SES families. This finding may lead one to suspect that low SES students may be financially hampered in college. However, no significant relationship between financial stress and withdrawal was found in the analyses. Neither scholarship nor loan recipients were more persistent than nonrecipients when other variables were controlled. Thus, the relationship between SES and withdrawal could primarily reflect the effect of parental expectations. As Sewell & Shah (1967) indicated, the factors contributing to withdrawal among low SES students may go beyond mere monetary need to precollege environment and personality characteristics, as reflected in lower motivation and aspirations.

The motivational hypothesis about college withdrawal is further supported by the significant effects of aspirations and achievement on withdrawal behavior, as measured by percentile rank and college grades, which reflect motivation as well as ability. In an earlier study using NLS data, Peng, Ashburn, and Dunteman (1976) found a large proportion of withdrawals reported a lack of clear plans (i.e., unsure what they wanted to do) and an inability to relate the value of college education to the real world. If students do not know what they want to do, if they do not see the relevance of their

school work, or if they do not even aspire to complete college, then somewhere along the line they have been inappropriately led or counseled into college. Consequently, their motivation for studying or persisting is low, and dropping out is very likely. As early as 1962, Summerskill pointed out that motivation was a crucial variable in the study of the dropout process. Spady (1970) agrees, citing other studies which substantiate this perspective. The issue is extremely complex and requires a comprehensive model which includes a number of personal and social variables--in particular, perhaps measures of need for achievement and affiliation (Spady, 1970). This study included no explicit measures which would begin to tap in-depth motivational variables. Most withdrawals may have the academic ability required for college education; they can finish college if they want to. But who is motivated is another question.

The motivation to complete college may largely come from intrinsic rewards; yet external rewards, such as being able to obtain a better job and quality of life, may motivate some students to overcome academic or other problems and stay in school. However, since intrinsic rewards are never the same to every individual, and our society may never provide enough external rewards for some people, the withdrawal problem will continue. Any substantial change probably will depend, to a large extent, upon the students' perception about the value or satisfaction of a college education.

Footnote

1/ The work upon which this publication is based was performed pursuant to Contract No. OEC-0-73-6666 with the National Center for Education Statistics of the Department of Health, Education, and Welfare. The opinions expressed in this paper, however, do not necessarily reflect the position or policy of the NCES, and no official endorsement of the NCES should be inferred.

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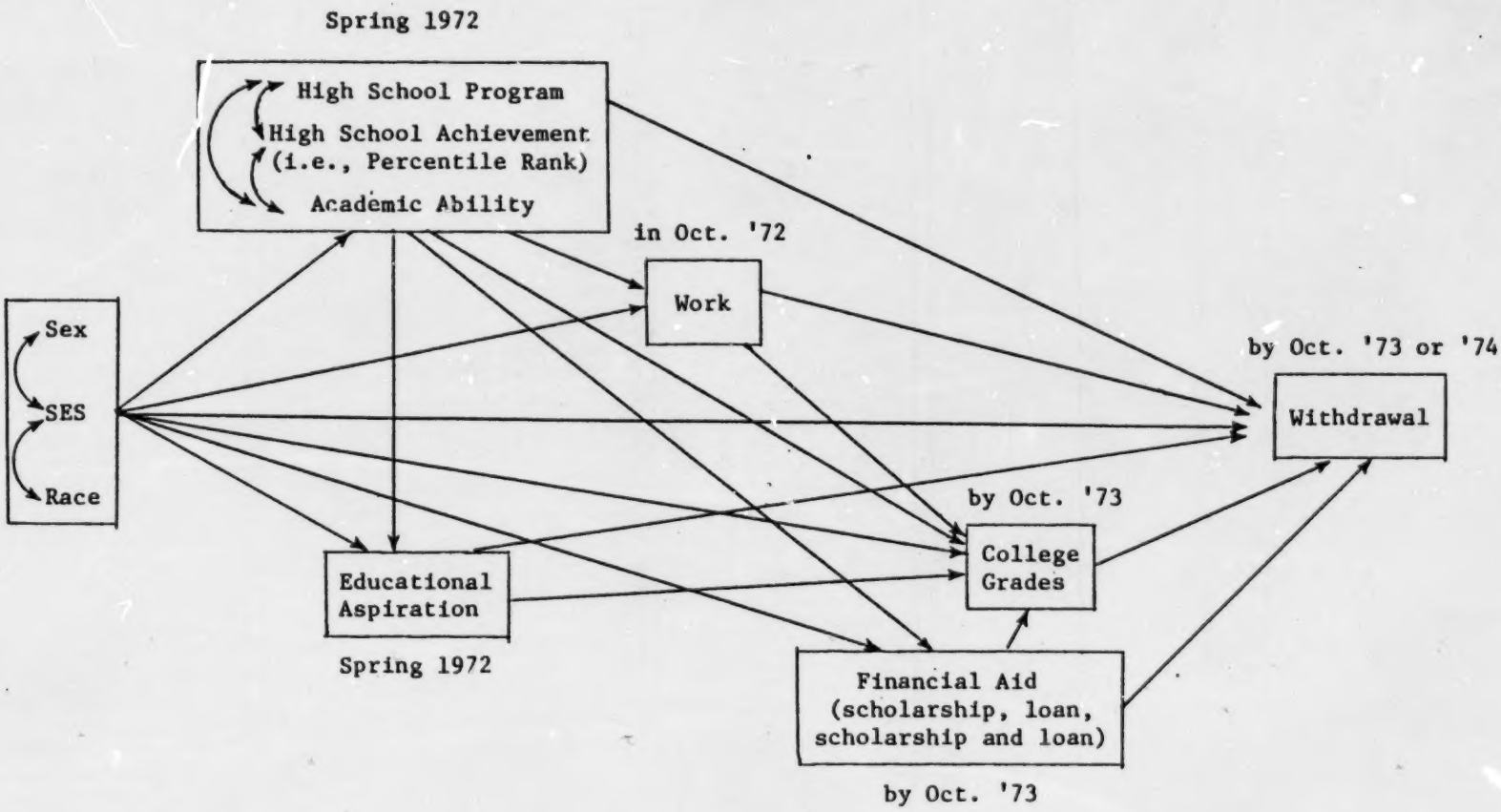

Figure 1. A Model of College Withdrawal

Table 1

MEANS AND STANDARD DEVIATIONS FOR PERSISTER AND WITHDRAWAL BY TYPE OF COLLEGE

	Four-Year College		Two-Year College	
Variables	Persister	Withdrawal	Persister	Withdrawal
SES	.432	.255	.235	.081
	(.701)	(.703)	(.640)	(.656)
Female	.495	.467	.440	.481
	(.500)	(.499)	(.497)	(.500)
White	.897	.858	.915	.878
	(.304)	(.349)	(.279)	(.327)
High School Program	.814	.674	.613	.478
	(.389)	(.469)	(.488)	(.500)
Percentile Rank	75.4	63.4	61.1	52.3
	(20.7)	(24.8)	(25.5)	(25.8)
Academic Ability	230	219	215	207
	(24)	(28)	(26)	(28)
Aspiration	5.263	5.042	4.811	4.447
	(.559)	(.770)	(.769)	(.973)
Scholarship	.396	.317	.290	.239
	(.489)	(.465)	(.454)	(.427)
Loan	.220	.212	.059	.079
	(.414)	(.409)	(.237)	(.270)
Work in October 1972	1.279	1.423	1.596	1.719
	(.490)	(.643)	(.635)	(.720)
College Grades	5.780	5.192	5.821	5.321
	(1.274)	(1.452)	(1.266)	(1.391)
N	2,998	1,541	555	823

Table 2

SIMPLE CORRELATION COEFFICIENTS

	Withdrawal	SES	Female	White	H.S. Program	Percentile Rank	Academic Ability	Aspiration	Scholarship	Loan	Work 1972	College Grades
Withdrawal		-.12	-.03	-.06	-.16	-.25	-.21	-.16	-.08	-.01	.12	-.20
SES	-.12		-.05	.35	.18	.05	.33	.17	-.27	-.26	-.14	.10
Female	.04	-.04		-.10	.00	.19	-.02	-.10	.04	.06	-.08	.13
White	-.06	.31	-.04		.20	.15	.46	.01	-.11	-.15	-.01	.14
H.S. Program	-.13	.18	.00	.21		.26	.41	.17	.01	.00	-.09	.13
Percentile Rank	-.17	.00	.25	.12	.25		.51	.17	.21	.06	-.08	.44
Academic Ability	-.15	.21	.02	.45	.42	.46		.25	.08	-.02	-.09	.34
Aspiration	-.20	.21	-.11	.06	.25	.18	.25		.06	.00	-.09	.09
Scholarship	-.06	-.20	-.01	-.06	.04	.14	.09	.07		.32	.01	.12
Loan	.04	-.17	.03	-.05	.01	.00	.01	-.01	.21		.02	-.02
Work 1972	.09	.00	-.09	.08	-.04	-.02	-.02	-.07	-.08	-.02		-.03
College Grades	-.18	.08	.22	.10	.16	.45	.35	.11	.09	.00	.04	

NOTE: The upper triangular matrix is for four-year college students, N=4,539, r>.03 is significant at the .01 level.
The lower triangular matrix is for two-year college students, N=1,378, r>.06 is significant at the .01 level.

Table 3

STANDARDIZED PARTIAL REGRESSION COEFFICIENTS FOR THE FULL WITHDRAWAL MODEL

	SES	Female	White	H.S. Program	Percentile Rank	Academic Ability	Aspira-tion	Scholar-ship	Loan	Work 1972	College Grades	With-drawal
SES		-.05**	.29**	.12**	-.04	.16**	.14**	-.30**	-.17**	-.14**	.05*	-.04*
Female	-.04		-.06**	.02	.20**	-.07**	-.14**	.01	.03	-.10**	.09**	.03
White	.29**	-.04		.12**	.17**	.27**	-.14**	-.10**	-.06**	.04**	.02	.08**
H.S. Program	.11**	.03	.16**		.20**	.17**	.06**	.00	.04*	-.05*	-.01	-.10**
Percentile Rank	-.09**	.25**	.07	.22**		.43**	.09**	.16**	-.02	-.04	.32**	-.11**
Academic Ability	.11**	-.09**	.30**	.23**	.39**		.20**	.13**	.01	-.03	.16**	-.03
Aspiration	.18**	-.14**	-.10*	.15**	.13**	.12*		.04	.00	-.06**	.00	-.09**
Scholarship	-.24**	-.04	-.05	.04	.07	.11*	.09*		.28**	.01	.05*	-.01
Loan	-.13**	.06	.00	.06	-.04	.00	.01	.20**		.01	-.05*	.01
Work 1972	-.08	-.11**	.10*	-.02	.01	.03	-.06	-.09*	.02		.00	.09**
College Grades	.01	.10**	-.02	.07	.34**	.18**	-.01	.05	-.02	.01		-.12**
Withdrawal	-.09*	.12**	.06	-.09*	-.10*	.02	-.09*	-.04	.00	.04	-.13**	

NOTE: 1. The upper triangular matrix is for four-year college students, and the lower triangular matrix is for two-year college students.

2. *p <.05; **p<.01.

3. Multiple R^2's were .098 and .092 for withdrawal from four-year institutions and two-year institutions, respectively. Both are significant at the .01 level.

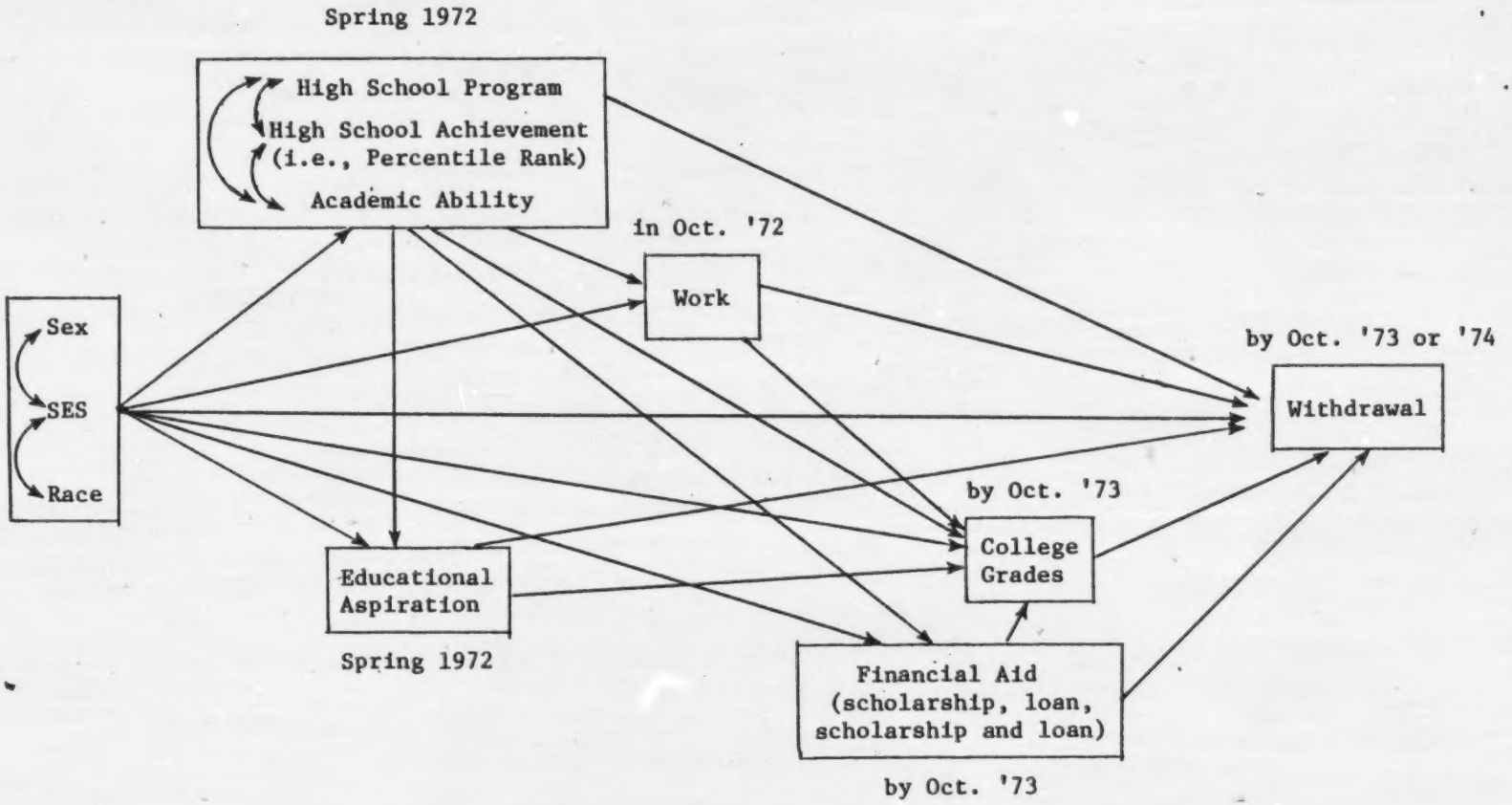

Figure 1. A Model of College Withdrawal